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Application No.: 10/823,214

Docket No.: 12708-US-PA

In The Claims:

Please amend the claims as follows:

Claim 1. (previously presented) A circuit for controlling a brushless permanent magnet motor comprising:

a plurality of windings, each of the windings having a first end connected at a common node and each of the windings having a second end connectable directly to supply voltages by switches, the second end connected to an upper supply voltage or connected to a lower supply voltage or disconnected from the supply voltages;

blocking circuitry connectable with the second ends, the blocking circuitry producing a blocked voltage, the blocked voltage representing a voltage across an associated winding;

a comparator receiving the blocked voltage on one input and a reference voltage on another input, the comparator result indicating polarity of a back emf voltage in the associated winding, wherein one input of the comparator is connected via a single direction switch to the second end of a winding and said single direction switch has an anode connected to one input of the comparator and a cathode to receive voltage signal from the second end of a winding; and

a latch providing control signals for the circuit, an input of the latch enabled by an enable signal, an output of the latch comprising a back emf voltage detection signal,

wherein the blocking circuitry and the comparator are duplicated for each of the windings.

Application No.: 10/823,214**Docket No.: 12708-US-PA**

Claim 2. (original) The circuit of claim 1, wherein the blocking circuit further comprises:

- a diode with a cathode end connected to the second end; and
- a resistor with one end connected to an anode end of the diode and the other end connected to a DC power source.

Claim 3. (previously presented) A circuit for controlling a brushless permanent magnet motor comprising:

- a plurality of windings, each of the windings having a first end connected at a common node and each of the windings having a second end connectable directly to supply voltages by switches, the second end connected to an upper supply voltage or connected to a lower supply voltage or disconnected from the supply voltages;

- a single blocking circuitry periodically connected to the second ends for producing a blocked voltage;

- a comparator receiving the blocked voltage on one input and a reference voltage on another input, the comparator result indicating polarity of a back emf voltage in the associated winding, wherein one input of the comparator is connected via a diode to the second end of a winding and said diode has an anode connected to one input of the comparator and a cathode to receive voltage signal from the second end of a winding; and

- a latch providing control signals for the circuit, an input of the latch enabled by an enable signal, an output of the latch comprising a back emf voltage detection signal.

DEC 12 2006

Application No.: 10/823,214

Docket No.: 12708-US-PA

Claim 4. (previously presented) The brushless DC motor module of claim 3, wherein the blocking circuit further comprises:

a second diode with a cathode end connected to the second end; and

a resistor with one end connected to an anode end of the second diode and the other end connected to a DC power source.

Claim 5-9. (canceled)